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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/734,811	12/11/2000	Mark A. Peloquin	AUS9-2000-0509-US1	2074
35525	7590	01/25/2005		
IBM CORP (YA) C/O YEE & ASSOCIATES PC P.O. BOX 802333 DALLAS, TX 75380			EXAMINER TRUONG, LECHI	
			ART UNIT 2126	PAPER NUMBER

DATE MAILED: 01/25/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

09/734,811

Applicant(s)

PELOQUIN ET AL.

Examiner

LeChi Truong

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE \_\_\_\_ MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 07 September 2004.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-18 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-5, 7-14 and 16-18 is/are rejected.
- 7) ☐ Claim(s) 6 and 15 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. §§ 119 and 120**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
a) ☐ All b) ☐ Some \* c) ☐ None of:  
1. ☐ Certified copies of the priority documents have been received.  
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_.  
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).  
\* See the attached detailed Office action for a list of the certified copies not received.
- 13) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application) since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.  
a) ☐ The translation of the foreign language provisional application has been received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121 since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 9/17/04
- 4) ☐ Interview Summary (PTO-413) Paper No(s) \_\_\_\_
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_

## DETAILED ACTION

1. Claims 1-20 are presented for examination.

### *Claim Rejections - 35 USC § 103*

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 1-4, 10-13, 19, 20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kuwate (US patent 6,145,067) in view of Smith et al (US. Patent 5,829,053).

3. **As to claim 1**, Kuwate teaches the invention substantially as claimed including: a device (physical disks, col 3, ln 25-30), device information (an external request, col 2, ln 21-28/ col 3, ln 10-17/ col 6, ln 35/ col 2, ln 21-30/ col 3, ln 1-17/col 6, ln 35-40), transforming the device into a logical disk (logically divided into P-EXTENTS 141, 142, 143, 144. The P-EXTENT 141, 142, 143 and 144 constitute one logical disk, col 3, ln 25-30/ the logical disk is reconfiguration, col 2, ln 30-35), based on the device information (reconfiguring the logical disk in accordance with a request from the external interface section 11, col 3, ln 10-17). Kuwate does not explicit teach the term creating any logical partitions for the device, modifying the logical volume management system to create the logical partitions for the device from the logical disk. However, Smith teaches creating any logical partitions for the device (disk partitioned into a first partition 62 and second partition 64, which is partitioned into audio, first and PhotoCD segments 72, 74, 76

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respectively, col 6, ln 8-11), modifying the logical volume management system to create the logical partitions for the device from the logical disk (separate partition managers associated with stores at different levels can be provided with individual partition codes tailored to implement the partition necessary at each hierarchical level, col 6, ln 1-5/ map partition are implemented using a disk driver as the partition manager, thus required a copy of the partition code to be stored in the disk driver, col 5, ln 60-62). Partition map describe how blocks of data in a virtual storage device are originated into sub-storage device (col 4, ln 57-60). The manager (disk driver) is modified since the partition code is copy into the manager (disk driver).

It would have been obvious to one of the ordinary skill in the art at the time the invention was made to apply the teaching of Kuwate and Smith because Smith's modifying the logical volume management system to create the logical partitions for the device from the logical disk would provide the independent partitioning managers from the device drivers for each partitioned device in each hierarchical level of a block storage memory.

**As to claim 2**, Kuwate teaches the device is transformed into the logical disk by a device manager plug-in module (col 6, ln 1-5).

**As to claim 3**, Kuwate teaches transforming the logical disk into the logical partition (col 6, ln 8-11).

**As to claim 4**, Kuwate teaches the logical disk is transformed into the logical partition by a partition manager plug-in module (col 4, ln 64-67).

**10. As to claims 10-13, 19, 20**, they are apparatus claims of claims 1, 3, 4, 2; therefore, they are rejected for the same reasons as claims 1, 3, 4, 2.

12. Claims **5,7, 14, 16-18** are rejected under 35 U.S.C. 103(a) as being unpatentable over Kuwate (US patent 6,145,067), in view of Smith et al (US. Patent 5,829,053), as applied to claim 1 above and further in view of Auslander et al (US. 5,129,088).

13. **As to claim 5**, Kuwate and Smith do not teach constructing a volume group. However, Auslander teaches constructing a volume group (create ... volume group, col 13, ln 25-67/ col 10, ln 44-55/col 11, ln 20-26/col 12, ln 35-68/ col 18, ln 15-20).

14. It would have been obvious to one of the ordinary skill in the art at the time the invention was made to combine the teaching of Kuwate, Smith and Auslander because Auslander's create volume group would provides ability to create, modify and query logical volumes, physical volumes and volume groups.

16. **As to claim 7**, Auslauder teaches creating a logical volume from the logical creating a logical volume (col 18, ln 64-69 to col 19, ln 1-10).

11. **As to claims 14, 16-18**, they are apparatus claims of claims 5, 6-9; therefore, they are rejected for the same reasons as claims 5, 6-9.

18. Claim **8, 9** are rejected under 35 U.S.C. 103(a) as being unpatentable over Kuwate (US patent 6,145,067),Smith et al (US. Patent 5,829,053), Auslander et al (US. 5,129,088), and further in view of IBM (IBM to release LVM Technology to The Linux).

19. **As to claim 8**, Kuwate, Smith and Auslander do not teach a feature plug-in module.

However, IBM teaches a feature plug-in module (the AIX feature plug-in, page 3,4).

20. It would have been obvious to one of the ordinary skill in the art at the time the invention was made to combine the teaching of Kuwate, Smith, Auslander and IBM because IBM's AIX device manager/AIX feature plug-ins would allow the operating system on the same machine to share a disk with another operating system and to access the extents used by other operating systems.

17. **As to claim 9**, IBM teaches exporting the logical volume (accessing and using AIX logical volume (page 4)).

***Allowable Subject Matter***

18. Claims 6 and 15 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

**Response to the argument**

19. Applicant's arguments filed 09/07/2004 have been considered but are moot in view of the new ground(s) of rejection. Applicant amended the claims. Smith's reference meets amended claims.

**20. THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for response to this final action is set to expire THREE MONTHS from the date of this action. In the event a first response is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event will the statutory period for response expire later than SIX MONTHS from the date of this final action.

#### *Conclusion*

Any inquiry concerning this communication or earlier communications from the examiner should be directed to LeChi Truong whose telephone number is (703) 305 5312. The examiner can normally be reached on 8 - 5.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Meng-Ai An can be reached on 703-305-9678. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.


Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIP. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR

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system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIP system, contact the Electronic Business Center (EBC) at 866-217-9197(toll-free).

LeChi Truong

January 19, 2005

  
MENG-AL T. AN  
SUPERVISORY PATENT EXAMINER  
ELECTRONIC BUSINESS CENTER 2100